

Non-Final Office Action

The Form PTO-326 mailed with the Office Action indicated that the Office Action was final, despite the fact that a new reference (and new rejection) was made. The Office Action itself, however, did not indicate that the Office Action was final. In a telephone conversation with Examiner Salad on November 26, 2001, and in another conversation with Examiner Salad on March 26, 2002, the Examiner confirmed that the Office Action is not final, and that the Form PTO-326 is incorrect. This was confirmed by the enclosed Patent Application Information Retrieval (PAIR) printout, which indicates that the Office Action is not final. Applicants therefore are responding to the Office Action as non-final.

Telephone Interview

Applicants thank Examiner Salad for the telephone interview with Applicants' attorney on November 26, 2001. During the interview, Applicants' attorney and the Examiner discussed the priority date of U.S. Patent No. 6,185,601, which was relied upon in the non-final Office Action. Also, the Examiner stated that the Form PTO-326 that was mailed as part of paper no. 20 on September 27, 2001 incorrectly stated that the Office Action is final, because it is non-final.

Claim Rejections

Claims 1, 6-16, 20, and 25-33 are rejected under 35 U.S.C. § 103(a) over United States Patent No. 6,185,601 to *Wolff et al.* (hereinafter referred to as "Wolff '601").

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Claims 1, 6-16, 20, and 25

Applicants filed on July 2, 2001 a declaration under 37 C.F.R. § 1.131 asserting that Applicants had reduced to practice claims 1, 6-16, 20, and 25 prior to October 6, 1997. In order to be considered as prior art under 35 U.S.C. § 102(e) that is a basis for rejection under 35 U.S.C. § 103, Wolff '601 would need to have the benefit of a filing date earlier than October 6, 1997. Wolff '601 claims priority to United States Provisional Patent Application Serial No. 60/077,146 filed on March 6, 1998. Wolff '601 also claims priority as a continuation-in-part to United States Patent Application Serial No. 08/905,307, now United States Patent No. 5,999,930, filed on August 1, 1997, which in turn claims priority to United States Provisional Patent Application Serial No. 60/023,218, filed on August 2, 1996. Wolff '601 also claims priority to International PCT Patent Application PCT/US97/12843 filed on August 1, 1997, which in turn claims priority to United States Provisional Patent Application Serial No. 60/023,218, filed on August 2, 1996. These priority claims are necessarily the basis for the rejection in the Office Action. Although the Examiner has access to these files, for convenience, a copy of each of United States Patent No. 5,999,930, United States Provisional Patent Application Serial No. 60/077,146, United States Provisional Patent Application No. 60/023,218, and International PCT Patent Application PCT/US97/12843 is enclosed.

Applicants respectfully submit that U.S. Patent No. 5,999,930, Provisional Patent Application Serial No. 60/023,218, and International PCT Patent Application PCT/US97/12843 do not teach or suggest Applicants' claims 1, 6-16, 20, and 25. The

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earliest date that Wolff '601 could have priority with regard to these claims is therefore

March 6, 1998.

Because Applicants have already established an invention date earlier than March 6, 1998 for claims 1, 6-16, 20, and 25, Wolff '601 is not prior art with respect to these claims. Accordingly, reconsideration and withdrawal of the rejection of claims 1, 6-16, 20, and 25 under 35 U.S.C. § 103 are respectfully requested.

Wolff '601

Wolff '601 has three aspects: (1) “client load rebalancing,” (2) “distributed Input and Output (I/O),” and (3) “resource rebalancing.” Column 4, lines 36-38. “Client load rebalancing refers to the ability of a client, enabled with processes in accordance with the current invention, to re-map a path through a plurality of nodes to a resource. The re-mapping may take place in response to a redirection command emanating from an overloaded node, e.g. server.” Column 4, lines 52-57. The processes running on a server (which is a node) are shown in Wolff '601 in FIG. 2A, and the processes associated with the “aware clients” (only aware clients participate in load rebalancing) are shown in Wolff '601 in FIGs. 2B, 4C and 4D.

Two methods of aware client load rebalancing, active and passive, are depicted in FIGs. 7A - 7D. At column 24, line 14 – Column 25, line 3, Wolff '601 states that:

In FIG. 7A, node 4, i.e. server 104A, has detected a utilization condition in excess of an overload threshold. Responsive to that determination ... server 104A determines which, among those clients that account for its current I/O activity, is an aware client. An aware client connects with a utilization server with a message indicating to the utilization server that the client is capable of

running aware processes 102P1 (see FIG. 1A). ... The utilization server 104A then sends a redirect packet 700, including a command portion 700A and an optional path portion 700B. The command portion 700A contains a generic command and the optional path portion 700B contains the alternate path, e.g. alternate node, through which the aware client may request the file system in the future.

In FIG. 713 (sic), aware client 3, responsive to the receipt of the command packet, redirects I/O for the subject file system along path 704 through node 3. Thus, the utilization level at node 4 is decreased. In the case that optional path portion 700B is not given, the client simply redirects future I/O to the least recently redirected, e.g. oldest, valid path.

FIGS. 7C-D show alternate embodiments of client node rebalancing, known as active load rebalancing, in which the aware client, having received a redirect command, performs the intelligent utilization decision making associated with choosing the actual redirect path. FIGS. 7C-D show the plurality of aware clients 102A and normal clients 100A communicating via nodes 1-4 with file system resources on a memory resource 118

In FIG. 7C, aware client 3 and normal clients 1-2 are sending 110 requests 712 for a file system through node 4, e.g. server 104A. Server 104A determines, on the basis, for example, of a stored threshold value, that it is experiencing an overload condition. Server 4 then sends a redirect packet 710 to the aware client 3. The redirect packet 710 contains a command portion 710A but does not contain a redirect path, as did the redirect packet in FIG. 7A. Thus, it is up to aware client 3 to determine an intelligent, acceptable redirect path ... In FIG. 7D, a redirect path 714 has been established between aware 3 and Node 3.

Claim 26

The Office Action states that independent claim 26 is similar in scope as claims 1, 15 and 20, and is rejected under the same rational. Applicants respectfully disagree and traverse this rejection.

Applicants' claim 26 recites, in part, "wherein the redirection is initiated by an agent running on the same host as the web server." Wolff '601 fails to disclose an agent,

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initiating a redirection request, running on the same host as a web server. Instead, Wolff '601 discloses a server, which is not running on a host. At least in part because the Wolff '601 server does not run on a host, Wolff '601 does not have an agent running on the same host as the web server. Wolff '601 therefore does not teach or suggest each and every element of Applicants' claim 26, and claim 26 therefore is not obvious over Wolff '601. Accordingly, reconsideration and withdrawal of the rejection of claim 26 is requested.

Claim 27 and Claim 29

The Office Action states that independent claims 27 and 29 are similar in scope as claims 1, 15 and 20, and therefore are rejected under the same rational. Applicants respectfully disagree and traverse this rejection.

Applicants' independent claims 27 and 29 recite, in part, "monitoring the web page request queue length" and "monitoring the web page request queue delay," respectively. Wolff '601 fails to disclose monitoring the web page request queue length or delay. The Office Action states that "it is well known in the art to monitor load by monitoring any one of the following predetermined conditions: ... request queue delay, and queue request length, and failure." Applicants respectfully traverse this assertion, and request that the Examiner provide evidence that it is well known to one skilled in the art or an explanation as to why evidence is unnecessary.

Applicants respectfully submit it would not have been obvious to combine the feature of monitoring the web page request queue length or web page request queue delay

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to Wolff '601, because there is no suggestion or motivation to do so. Wolff '601 is directed at client load balancing by using aware clients, and not to a web serving application. Wolff '601 does not teach or suggest use of a web page request queue length, or a web page request queue delay. Therefore, independent claims 27 and 29 are not obvious in light of Wolff '601. Also, claims 28 and 30 which depend directly from claims 27 and 29, respectively, are also in condition for allowance. Accordingly, reconsideration and withdrawal of the rejection of claims 27-30 is requested.

Claim 31

The Office Action states that claim 31 is similar in scope as claims 1, 15 and 20, is rejected under the same rational. Applicants respectfully disagree and traverse this rejection.

Applicants' claim 31 recites, in part, "an agent in communication with a central manager, wherein the agent communicates the status of the web server to the manger." Wolff '601 does not disclose an agent in communication with a central manager, or an agent communicating the status of the web server to the manager. At most, Wolff '601 discloses, in FIGS. 7A-7D, each server communicating its status directly to an aware client in order to perform client load rebalancing. A Wolff '601 client is not a central manager. Wolff '601 therefore does not teach each and every element of Applicants' claimed invention, therefore claim 31 is not obvious in light of Wolff '601, nor are claims 32 and 33 which depend directly from claim 31. Accordingly, reconsideration and withdrawal of the rejection of claims 31-33 under 35 U.S.C. § 103 is respectfully requested.

CONCLUSION

In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the rejections of claims 1, 6-16, 20, and 25-33, and that the claims be allowed in due course. If the Examiner believes that a telephone conference with Applicants' attorney would be helpful, the Examiner is invited to contact the Applicants' attorney at the number below.

Respectfully submitted,



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